

REMARKS

Applicants respectfully request entry of the following amendments and remarks in response to the Office Action mailed July 17, 2008. Applicants respectfully submit that the amendments and remarks contained herein place the instant application in condition for allowance.

Upon entry of the amendments in this response, claims 1 – 20 are pending. In particular, Applicants amend claims 1, 8, 9, and 15 – 20. Reconsideration and allowance of the application and presently pending claims are respectfully requested.

I. Claim 1 is Allowable Over *Horvitz* in view of *Addison*

The Office Action indicates that claim 1 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent Number 6,161,130 ("*Horvitz*") in view of U.S. Patent Publication Number 2003/0144842 ("*Addison*"). Applicants respectfully traverse this rejection for at least the reason that *Horvitz* in view of *Addison* fails to disclose, teach, or suggest all of the elements of claim 1. More specifically, claim 1 recites:

A method comprising:
training an email system for determining spam, where
training includes at least the following:
retrieving a first email message;
generating a phonetic equivalent of at least one
word from a body portion the email message;
tokenizing the phonetic equivalent of the word to
generate a token representative of the phonetic equivalent;
tokenizing at least one word in a subject line of the
first email message;
tokenizing at least one simple mail transfer protocol
(SMTP) email address associated with the first email message;
tokenizing at least one domain name associated
with the first email message;
***tokenizing at least one attachment of the first
email message, wherein tokenizing the at least one
attachment includes generating a 128-bit MD5 hash of the
attachment, appending a 32-bit length of the attachment to
the generated MD5 hash resulting in a 160-bit number, and
UUencoding the resulting 160-bit number;***
determining a spam probability from the generated

tokens;

in response to a determination that the spam probability from the generated tokens indicates that the first email message is likely spam:

determining whether the generated tokens are present in a database of tokens;

in response to a determination that at least one of the generated tokens is not present in the database of tokens, assigning a probability value for each token as spam and adding the token and assigned probability value to the database of tokens; and

in response to a determination that the token is present in the database of tokens, updating a probability value of the token;

in response to a determination that the spam probability from the generated tokens, indicates that the first email message is not likely spam:

determining whether the generated tokens are present in a database of tokens;

in response to a determination that at least one of the generated tokens is not present in the database of tokens, assigning a probability value for each token indicative of non-spam and adding the token and assigned probability value to the database of tokens; and

in response to a determination that the token is present in the database of tokens, updating a probability value of the token;

sorting the generated tokens in accordance with the corresponding determined spam probability value;
and

filtering a second email message according to the training.
(Emphasis added).

Applicants respectfully submit that claim 1, as amended, is allowable over the cited art for at least the reason that neither *Horvitz* nor *Addison*, taken alone or in combination, discloses, teaches, or suggests a "method comprising... training an email system for determining spam, where training includes at least the following... ***tokenizing at least one attachment of the first email message, wherein tokenizing the at least one attachment includes generating a 128-bit MD5 hash of the attachment, appending a 32-bit length of the attachment to the generated MD5 hash resulting in a 160-bit number, and UUencoding the resulting 160-bit number... [and] sorting the generated tokens in accordance with the corresponding determined spam probability value***" as recited in claim

1, as amended. More specifically, *Horvitz* discloses a “[t]ext analyzer 330 breaks each input message into its constituent tokens” (column 11, line 55). However, *Horvitz* fails to even suggest a “method comprising... training an email system for determining spam, where training includes at least the following... ***tokenizing at least one attachment of the first email message, wherein tokenizing the at least one attachment includes generating a 128-bit MD5 hash of the attachment, appending a 32-bit length of the attachment to the generated MD5 hash resulting in a 160-bit number, and UUencoding the resulting 160-bit number...*** [and] ***sorting the generated tokens in accordance with the corresponding determined spam probability value***” as recited in claim 1, as amended.

Further, *Addison* fails to overcome the deficiencies of *Horvitz*. More specifically, *Addison* discloses a “set of phrase parsing rules [that] are used to generate marked up text. The marked up text is then phonetically parsed using phonetic parsing rules and Lessac expressive parsing rules” (page 2, paragraph [0011]). However, *Horvitz* fails to even suggest a “method comprising... training an email system for determining spam, where training includes at least the following... ***tokenizing at least one attachment of the first email message, wherein tokenizing the at least one attachment includes generating a 128-bit MD5 hash of the attachment, appending a 32-bit length of the attachment to the generated MD5 hash resulting in a 160-bit number, and UUencoding the resulting 160-bit number...*** [and] ***sorting the generated tokens in accordance with the corresponding determined spam probability value***” as recited in claim 1, as amended.

II. Claim 8 is Allowable Over *Horvitz* in view of *Addison*

The Office Action indicates that claim 8 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent Number 6,161,130 (“*Horvitz*”) in view of U.S. Patent Publication Number 2003/0144842 (“*Addison*”). Applicants respectfully traverse this

rejection for at least the reason that *Horvitz* in view of *Addison* fails to disclose, teach, or suggest all of the elements of claim 8. More specifically, claim 8 recites:

A system comprising:
means for receiving an email message having a word and an attachment;
means for generating a phonetic equivalent of the word from the email message;
means for tokenizing the phonetic equivalent of the word to generate a token representative of the phonetic equivalent;
means for tokenizing the attachment;
means for determining a spam probability from the generated token; and
means for sorting the generated tokens in accordance with the corresponding determined spam probability value.
(Emphasis added).

Applicants respectfully submit that claim 8, as amended, is allowable over the cited art for at least the reason that neither *Horvitz* nor *Addison*, taken alone or in combination, discloses, teaches, or suggests a "system comprising... training an email system for determining spam, where training includes at least the following... ***means for tokenizing the attachment...*** [and] ***means for sorting the generated tokens in accordance with the corresponding determined spam probability value***" as recited in claim 8, as amended. More specifically, *Horvitz* discloses a "[t]ext analyzer 330 breaks each input message into its constituent tokens" (column 11, line 55). However, *Horvitz* fails to even suggest a "system comprising... training an email system for determining spam, where training includes at least the following... ***means for tokenizing the attachment...*** [and] ***means for sorting the generated tokens in accordance with the corresponding determined spam probability value***" as recited in claim 8, as amended.

Further, *Addison* fails to overcome the deficiencies of *Horvitz*. More specifically, *Addison* discloses a "set of phrase parsing rules [that] are used to generate marked up text. The marked up text is then phonetically parsed using phonetic parsing rules and Lessac expressive parsing rules" (page 2, paragraph [0011]). However, *Horvitz* fails to even suggest a "system comprising... training an email system for determining spam, where training includes at

least the following... ***means for tokenizing the attachment...*** [and] ***means for sorting the generated tokens in accordance with the corresponding determined spam probability value***" as recited in claim 8, as amended.

III. Claim 9 is Allowable Over Horvitz in view of Addison

The Office Action indicates that claim 9 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent Number 6,161,130 ("*Horvitz*") in view of U.S. Patent Publication Number 2003/0144842 ("*Addison*"). Applicants respectfully traverse this rejection for at least the reason that *Horvitz* in view of *Addison* fails to disclose, teach, or suggest all of the elements of claim 9. More specifically, claim 9 recites:

A system comprising:
a processor; and
a memory, the memory storing:
 receive logic configured to receive an email
 message having a word and an attachment;
 phonetic logic configured to generate a phonetic
 equivalent of the word from the email message;
 first tokenize logic configured to tokenize the
 phonetic equivalent of the word to generate a token representative
 of the phonetic equivalent;
 ***second tokenize logic configured to tokenize
the attachment;***
 spam-determination logic configured to determine a
 spam probability from the generated tokens; and
 ***sorting logic configured to sort the generated
tokens in accordance with the corresponding determined
spam probability value.***
(Emphasis added).

Applicants respectfully submit that claim 9, as amended, is allowable over the cited art for at least the reason that neither *Horvitz* nor *Addison*, taken alone or in combination, discloses, teaches, or suggests a "system comprising... a memory, the memory storing... ***second tokenize logic configured to tokenize the attachment...*** [and] ***sorting logic configured to sort the generated tokens in accordance with the corresponding determined spam probability value***" as recited in claim 9, as amended. More specifically,

Horvitz discloses a "[t]ext analyzer 330 breaks each input message into its constituent tokens" (column 11, line 55). However, *Horvitz* fails to even suggest a "system comprising... a memory, the memory storing... **second tokenize logic configured to tokenize the attachment...** [and] **sorting logic configured to sort the generated tokens in accordance with the corresponding determined spam probability value**" as recited in claim 9, as amended.

Further, *Addison* fails to overcome the deficiencies of *Horvitz*. More specifically, *Addison* discloses a "set of phrase parsing rules [that] are used to generate marked up text. The marked up text is then phonetically parsed using phonetic parsing rules and Lessac expressive parsing rules" (page 2, paragraph [0011]). However, *Horvitz* fails to even suggest a "system comprising... a memory, the memory storing... **second tokenize logic configured to tokenize the attachment...** [and] **sorting logic configured to sort the generated tokens in accordance with the corresponding determined spam probability value**" as recited in claim 9, as amended.

IV. **Claim 15 is Allowable Over *Horvitz* in view of *Addison***

The Office Action indicates that claim 15 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent Number 6,161,130 ("*Horvitz*") in view of U.S. Patent Publication Number 2003/0144842 ("*Addison*"). Applicants respectfully traverse this rejection for at least the reason that *Horvitz* in view of *Addison* fails to disclose, teach, or suggest all of the elements of claim 15. More specifically, claim 15 recites:

A computer-readable medium that includes a program that, when executed by a computer, causes the computer to perform at least the following:

- receive an email message having a word and an attachment;
- generate a phonetic equivalent of the word from the email message;
- tokenize the phonetic equivalent of the word to generate a token representative of the phonetic equivalent;
- tokenize the attachment;**
- determine a spam probability from the generated token;

and

sort the generated tokens in accordance with the corresponding determined spam probability value.
(Emphasis added).

Applicants respectfully submit that claim 15, as amended, is allowable over the cited art for at least the reason that neither *Horvitz* nor *Addison*, taken alone or in combination, discloses, teaches, or suggests a “computer-readable medium that includes a program that, when executed by a computer, causes the computer to perform at least the following...

tokenize the attachment... [and] sort the generated tokens in accordance with the corresponding determined spam probability value” as recited in claim 15, as amended.

More specifically, *Horvitz* discloses a “[t]ext analyzer 330 breaks each input message into its constituent tokens” (column 11, line 55). However, *Horvitz* fails to even suggest a “computer-readable medium that includes a program that, when executed by a computer, causes the computer to perform at least the following... ***tokenize the attachment... [and] sort the generated tokens in accordance with the corresponding determined spam probability value***” as recited in claim 15, as amended.

Further, *Addison* fails to overcome the deficiencies of *Horvitz*. More specifically, *Addison* discloses a “set of phrase parsing rules [that] are used to generate marked up text. The marked up text is then phonetically parsed using phonetic parsing rules and Lessac expressive parsing rules” (page 2, paragraph [0011]). However, *Horvitz* fails to even suggest a “computer-readable medium that includes a program that, when executed by a computer, causes the computer to perform at least the following... ***tokenize the attachment... [and] sort the generated tokens in accordance with the corresponding determined spam probability value***” as recited in claim 15, as amended.

V. Claims 4 – 7 and 11 – 14 are Allowable Over *Horvitz* in view of *Addison*

The Office Action indicates that claims 4 – 7 and 11 – 14 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent Number 6,161,130 ("*Horvitz*") in view of U.S. Patent Publication Number 2003/0144842 ("*Addison*"). Applicants respectfully traverse this rejection for at least the reason that *Horvitz* in view of *Addison* fails to disclose, teach, or suggest all of the elements of claim 4 – 7 and 11 – 14. More specifically, dependent claims 4 – 7 are believed to be allowable for at least the reason that these claims depend from and include the elements of allowable independent claim 1. Further, dependent claims 11 – 14 are believed to be allowable for at least the reason that they depend from and include the elements of allowable independent claim 9. *In re Fine, Minnesota Mining and Mfg.Co. v. Chemque, Inc.*, 303 F.3d 1294, 1299 (Fed. Cir. 2002).

VI. Claims 2 – 3, 10, and 16 are Allowable Over *Horvitz* in view of *Addison* further in view of *Sahami*

The Office Action indicates that claims 2 – 3, 10, and 16 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent Number 6,161,130 ("*Horvitz*") in view of U.S. Patent Publication Number 2003/0144842 ("*Addison*") and further in view of "A Bayesian approach to Filtering Junk E-mail", by Mehran Sahami ("*Sahami*"). Applicants respectfully traverse this rejection for at least the reason that *Horvitz* in view of *Addison* further in view of *Sahami* fails to disclose, teach, or suggest all of the elements of claim 2 – 3, 10, and 16. More specifically, dependent claims 2 – 3 are believed to be allowable over *Horvitz* and *Addison* for at least the reason that these claims depend from and include the elements of allowable independent claim 1. Further, dependent claim 10 is believed to be allowable over *Horvitz* and *Addison* for at least the reason that this claim depends from and include the elements of allowable independent claim 9. Dependent claim 16 is believed to be allowable over *Horvitz* and *Addison* for at least the reason that this claim depends from and include the elements of allowable independent claim 15. Because *Sahami* fails to overcome the deficiencies of *Horvitz*

and *Addison*, claims 2 – 3, 10, and 16 are allowable as a matter of law. *In re Fine, Minnesota Mining and Mfg.Co. v. Chemque, Inc.*, 303 F.3d 1294, 1299 (Fed. Cir. 2002).

CONCLUSION

In light of the foregoing amendments and for at least the reasons set forth above, all objections and/or rejections have been traversed, rendered moot, and/or addressed, and that the now pending claims are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested.

Any other statements in the Office Action that are not explicitly addressed herein are not intended to be admitted. In addition, any and all findings of inherency are traversed as not having been shown to be necessarily present. Furthermore, any and all findings of well-known art and Official Notice, or statements interpreted similarly, should not be considered well-known for the particular and specific reasons that the claimed combinations are too complex to support such conclusions and because the Office Action does not include specific findings predicated on sound technical and scientific reasoning to support such conclusions.

If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

Respectfully submitted,

/afb/

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